

CLAIMS

1. Method for marking one face of an ophthalmic lens of the type including a low surface energy hydrophobic and/or oleophobic outermost layer on a substrate or a high 5 surface energy coating, wherein a mask having a configuration complementary to the required mark is positioned between the face of the lens to be marked and an energizing discharge source adapted to eliminate substantially the outermost layer in order to reveal the 10 substrate or underlying high energy coating, which method is characterized in that there is deposited onto said outermost layer a temporary protection layer having a surface energy higher than that of the outermost layer and a thickness of less than about 5 nm to enable the discharge 15 to act on the outermost layer through the temporary protection layer.

2. Method according to claim 1, characterized in that the thickness of the temporary protection layer is from approximately 2 nm to approximately 4 nm.

20 3. Method according to claim 1 or claim 2, characterized in that the protection layer is a mineral layer.

25 4. Method according to claim 1 or claim 2, characterized in that the protection layer comprises a metal fluoride or a mixture of metal fluorides or a metal oxide or a mixture of metal oxides.

5. Method according to claim 4, characterized in that the metal fluoride is MgF_2 , LaF_2 , AlF_3 or CeF_3 .

30 6. Method according to claim 4, characterized in that the oxide is selected from TiO_2 , Al_2O_3 , ZrO_2 and praseodymium oxide and the mixture of metal oxides is a mixture of alumina and praseodymium oxide.

35 7. Method according to any one of the preceding claims, characterized in that the protection layer is deposited by evaporation.

8. Method according to any one of the preceding claims, characterized in that the temporary protection layer is deposited on a region of the face intended to be in contact with a shoe for retaining the lens during
5 trimming thereof.

9. Method according to any one of the preceding claims, characterized in that the layer has a substantially continuous structure.

10. Method according to any one of the preceding claims, characterized in that the protection layer has a discontinuous structure.

11. Method according to any one of the preceding claims, characterized in that the protection layer takes the form of a screen.

15 12. Method according to any one of the preceding claims, characterized in that the temporary protection layer consists of polytetrafluoroethylene.

20 13. Method according to claim 1, characterized in that the protection layer consists of a marking ink for ophthalmic lenses and/or a polymer constituting a marking ink binder.

14. Method according to any one of the preceding claims, characterized in that the hydrophobic and/or oleophobic surface coating comprises fluorinated groups.

25 15. Method according to any one of the preceding claims, characterized in that the lens comprises an antireflection coating onto which the hydrophobic and/or oleophobic layer is deposited.

30 16. Method according to claim 15, characterized in that the hydrophobic and/or oleophobic coating includes a plurality of layers.

17. Method according to any one of the preceding claims, characterized in that the temporary protection layer is eliminated after trimming the lens.

35 18. Method according to claim 17, characterized in

that the temporary protection layer is eliminated by an acid solution.

19. Method according to claim 17, characterized in that the temporary protection layer is eliminated by dry 5 wiping.

20. Method according to claim 17, characterized in that the temporary protection layer is eliminated by application of ultrasound.

21. Method according to any one of claims 17 to 10 20, characterized in that the elimination of the temporary protection layer is followed by a cleaning step using an aqueous solution with a pH substantially equal to 7.

22. Method according to any one of the preceding 15 claims, wherein the deposition of the hydrophobic and/or oleophobic outermost layer on a first face of the lens is preceded by the deposition of one or more mineral or organic layers, characterized in that at least one step of treatment by energetic and/or reactive substances capable of attacking and/or chemically modifying the surface of the 20 first face of the lens is effected before the deposition of the mineral or organic layer(s).

23. Method according to claim 22, characterized in that the lens is turned over to treat its second face by energetic and/or reactive substances before depositing one 25 or more mineral or organic layers and a hydrophobic and/or oleophobic outermost layer.

24. Method according to claim 23, characterized in that a temporary protection layer is deposited on the hydrophobic and/or oleophobic outermost layer on the second 30 face of the lens.